Epizootic Hemorrhagic Disease (EHD)

Background

- Epizootic Hemorrhagic Disease (EHD) is the most common infectious disease of white-tailed deer in the Eastern United States. It is not transferable to humans.
- EHD is caused by a virus. Only rarely does it cause illness in other animals. The virus is spread from animal to animal by biting midges that live in or near water and wet, muddy areas. These midges transmit the virus as they feed.
- Outbreaks of EHD typically strike in late summer or early fall. An EHD outbreak is more likely if the weather has been unusually warm and dry leading to concentrations of deer at whatever water is available, which is where the virus-carrying midges live. Fortunately, drought alone does not mean a possible EHD outbreak in Pennsylvania. Similarly, practices like supplemental feeding and placement of mineral blocks can concentrate deer leading to increased exposure to infected midges.
- Deer in the early stages of EHD may appear lethargic, disoriented, lame, or unresponsive to humans and other stimulus. As the disease progresses the deer may drool, have bloody discharge from the nose, sores on the mouth, and swollen, blue tongues. They may become thin because they stop eating. Sometimes they stop drinking, although many die close to or in water likely because they are attracted to it as a result having a high fever.
- Even though EHD is not transmissible to humans, secondary infections may take advantage of the weakened condition of the animal making it unfit for human consumption. The Game Commission always recommends hunters avoid shooting or consuming deer that appear ill.
- The outbreak is usually cut short by the first hard frost, which will kill the disease-carrying midges. Since the incubation period for the disease is five to seven days, affected deer may be observed for a couple of weeks after frost. Wetter weather may also help to reduce the effect of the outbreak by spreading the deer out and away from midge-infested areas.
- In recent times, outbreaks among white-tailed deer have occurred in Pennsylvania in 1996 (not actually confirmed), 2002 and 2007 and 2011. The more frequently a deer is exposed to the virus the more likely it is to develop immunity allowing it to recover. For this reason, EHD outbreaks in southern states, which occur more frequently than in more northern states like Pennsylvania, typically have lower mortality rates than are seen when the disease comes to the Commonwealth.
- Rapid decomposition, lush summer vegetation, and other factors make actual counts of affected deer impractical. However, even after the most severe outbreaks deer numbers rebound quickly.
- Other hoofed wildlife, such as elk, could be infected with the disease, but are usually not stricken in large numbers like white-tailed deer. However, farmed deer are every bit as susceptible as wild cervids; deer imported from areas where the virus is present can potentially serve as viral reservoirs, thus putting nearby wild deer at risk.

EHD has a very close relative known as the Bluetongue virus. Bluetongue is not thought to cause illness in wild deer, but does affect traditional domestic animals, like cattle, sheep and goats. While it is quite rare for EHD to cause illness in livestock, it has been reported in areas where there are outbreaks of EHD in wild deer.